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Reviewer: Durreshwar Anjum

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Application No: 10528104 Version No: 2.0

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Actual SeqID Count: 16

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<120> THE USE OF MOLECULAR MARKERS FOR THE PRECLINICAL AND CLINICAL PROFILING OF INHIBITORS OF ENZYMES HAVING HISTONE DEACETYLASE ACTIVITY

<130> LEDER-15

<140> 10528104

<141> 2005-09-28

<150> PCT/EP03/10404

<151> 2003-09-18

<150> EP 02021228.8

<151> 2002-09-18

<160> 16

<170> PatentIn Ver. 3.3

<210> 1

<211> 488

<212> PRT

<213> Homo sapiens

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Tyr Arg Lys Met Glu Ile Tyr Arg Pro His Lys Ala Thr Ala Glu Glu 50 55 60

Met Thr Lys Tyr His Ser Asp Glu Tyr Ile Lys Phe Leu Arg Ser Ile 65 70 75 80

Arg Pro Asp Asn Met Ser Glu Tyr Ser Lys Gln Met His Ile Phe Asn 85 90 95

Val Gly Glu Asp Cys Pro Ala Phe Asp Gly Leu Phe Glu Phe Cys Gln

100 105 110

Leu Ser Thr Gly Gly Ser Val Ala Gly Ala Val Lys Leu Asn Arg Gln Gln Thr Asp Met Ala Val Asn Trp Ala Gly Gly Leu His His Ala Lys Lys Tyr Glu Ala Ser Gly Phe Cys Tyr Val Asn Asp Ile Val Leu Ala Ile Leu Glu Leu Lys Tyr His Gln Arg Val Leu Tyr Ile Asp Ile Asp Ile His His Gly Asp Gly Val Glu Ala Phe Tyr Thr Thr Asp Arg Val Met Thr Val Ser Phe His Lys Tyr Gly Glu Tyr Phe Pro Gly Thr Gly Asp Leu Arg Asp Ile Gly Ala Gly Lys Gly Lys Tyr Tyr Ala Val Asn Phe Pro Met Cys Asp Gly Ile Asp Asp Glu Ser Tyr Gly Gln Ile Phe Lys Pro Ile Ile Ser Lys Val Met Glu Met Tyr Gln Pro Ser Ala Val Val Leu Gln Cys Gly Ala Asp Ser Leu Ser Gly Asp Arg Leu Gly Cys Phe Asn Leu Thr Val Lys Gly His Ala Lys Cys Val Glu Val Val Lys Thr Phe Asn Leu Pro Leu Leu Met Leu Gly Gly Gly Tyr Thr Ile Arg Asn Val Ala Arg Cys Trp Thr Tyr Glu Thr Ala Val Ala Leu Asp Cys Glu Ile Pro Asn Glu Leu Pro Tyr Asn Asp Tyr Phe Glu Tyr Phe Gly Pro Asp Phe Lys Leu His Ile Ser Pro Ser Asn Met Thr 340 345 Asn Gln Asn Thr Pro Glu Tyr Met Glu Lys Ile Lys Gln Arg Leu Phe Glu Asn Leu Arg Met Leu Pro His Ala Pro Gly Val Gln Met Gln Ala Ile Pro Glu Asp Ala Val His Glu Asp Ser Gly Asp Glu Asp Gly Glu

Asp Pro Asp Lys Arg Ile Ser Ile Arg Ala Ser Asp Lys Arg Ile Ala

405 410 415

Cys Asp Glu Glu Phe Ser Asp Ser Glu Asp Glu Gly Glu Gly Arg 420 425 430

Arg Asn Val Ala Asp His Lys Lys Gly Ala Lys Lys Ala Arg Ile Glu
435 440 445

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35 40 45

Gly Val Trp Lys Val Arg Val Asp Leu Pro Asp Lys Tyr Pro Phe Lys 50 55 60

Ser Pro Ser Ile Gly Phe Met Asn Lys Ile Phe His Pro Asn Ile Asp 65 70 75 80

Glu Ala Ser Gly Thr Val Cys Leu Asp Val Ile Asn Gln Thr Trp Thr 85 90 95

Ala Leu Tyr Asp Leu Thr Asn Ile Phe Glu Ser Phe Leu Pro Gln Leu 100 105 110

Leu Ala Tyr Pro Asn Pro Ile Asp Pro Leu Asn Gly Asp Ala Ala Ala 115 120 125

Met Tyr Leu His Arg Pro Glu Glu Tyr Lys Gln Lys Ile Lys Glu Tyr 130 135 140

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Asp Asn Asn Leu Gly Thr Pro Gly Glu Ser Thr Glu Glu Leu 50 55

Leu Arg Arg Leu Gln Gln Ile Lys Glu Gly Pro Pro Pro Gln Asn Ser 70 75

Asp Glu Asn Arg Gly Gly Asp Ser Ser Asp Asp Val Ser Asn Gly Asp 90 85

Ser Ile Ile Asp Trp Leu Asn Ser Val Arg Gln Thr Gly Asn Thr Thr 105

Arg Ser Gly Gln Arg Gly Asn Gln Ser Trp Arg Ala Val Cys Arg Thr 115 120

Asn Pro Asn Ser Gly Asn Phe Arg Phe Ser Leu Glu Ile Asn Val Tyr 135 140

Ser Asn Asn Gly Ser Gln Asn Ser Glu Asn Glu Asn Glu Pro Ser Ala 150 145 155 160

Arg Arg Ser Ser Gly Glu Asn Val Glu Asn Asn Ser Gln Arg Gln Val 165 170

Glu Asn Pro Arg Ser Glu Ser Thr Ser Ala Arg Pro Ser Arg Ser Glu 185

Arg Asn Ser Thr Glu Ala Leu Thr Glu Val Pro Pro Thr Arg Gly Gln 195 200

Arg Arg Ala Arg Ser Arg Ser Pro Asp His Arg Arg Thr Arg Ala Arg 210 215 220

Ala Glu Arg Ser Arg Ser Pro Leu His Pro Met Ser Glu Ile Pro Arg 235 225 230 240

Arg Ser His His Ser Ile Ser Ser Gln Thr Phe Glu His Pro Leu Val 245 250

Asn Glu		lu Gly 60	Ser	Ser	Arg	Thr 265	Arg	His	His	Val	Thr 270	Leu	Arg
Gln Gln	Ile So	er Gly	Pro	Glu	Leu 280	Leu	Ser	Arg	Gly	Leu 285	Phe	Ala	Ala
Ser Gly 290	Thr A	rg Asn	Ala	Ser 295	Gln	Gly	Ala	Gly	Ser 300	Ser	Asp	Thr	Ala
Ala Ser 305	Gly G	lu Ser	Thr 310	Gly	Ser	Gly	Gln	Arg 315	Pro	Pro	Thr	Ile	Val 320
Leu Asp	Leu G	ln Val 325	Arg	Arg	Val	Arg	Pro 330	Gly	Glu	Tyr	Arg	Gln 335	Arg
Asp Ser		la Ser 40	Arg	Thr	Arg	Ser 345	Arg	Ser	Gln	Thr	Pro 350	Asn	Asn
Thr Val	Thr T ₁	yr Glu	Ser	Glu	Arg 360	Gly	Gly	Phe	Arg	Arg 365	Thr	Phe	Ser
Arg Ser 370	Glu A	rg Ala	Gly	Val 375	Arg	Thr	Tyr	Val	Ser 380	Thr	Ile	Arg	Ile
Pro Ile 385	Arg A	rg Ile	Leu 390	Asn	Thr	Gly	Leu	Ser 395	Glu	Thr	Thr	Ser	Val 400
Ala Ile	Gln T	hr Met 405	Leu	Arg	Gln	Ile	Met 410	Thr	Gly	Phe	Gly	Glu 415	Leu
Ser Tyr		et Tyr 20	Ser	Asp	Ser	Asp 425	Ser	Glu	Pro	Thr	Gly 430	Ser	Val
Ser Asn	435			_	440			_		445		_	
Ser Gly 450				455					460				
Ser Ser 465			470					475					480
Ser Gly	-	485					490					495	
Asn Glu	5	00				505					510		_
Arg His	515				520	-				525			
Leu Ser 530				535					540		_		
Pro Arg 545	Gly L	eu Thr	Lys 550	Glu	Gln	Ile	Asp	Asn 555	Leu	Ala	Met	Arg	Ser 560

Phe Gly Glu Asn Asp Ala Leu Lys Thr Cys Ser Val Cys Ile Thr Glu
565 570 575

Tyr Thr Glu Gly Asn Lys Leu Arg Lys Leu Pro Cys Ser His Glu Tyr 580 585 590

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<212> PRT

<213> Homo sapiens

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20 25 30

Val Thr Tyr Val Tyr Phe Thr Asn Glu Leu Lys Gln Met Gln Asp Lys
35 40 45

Tyr Ser Lys Ser Gly Ile Ala Cys Phe Leu Lys Glu Asp Asp Ser Tyr 50 55 60

Trp Asp Pro Asn Asp Glu Glu Ser Met Asn Ser Pro Cys Trp Gln Val 65 70 75 80

Lys Trp Gln Leu Arg Gln Leu Val Arg Lys Met Ile Leu Arg Thr Ser 85 90 95

Glu Glu Thr Ile Ser Thr Val Gln Glu Lys Gln Gln Asn Ile Ser Pro 100 105 110

Leu Val Arg Glu Arg Gly Pro Gln Arg Val Ala Ala His Ile Thr Gly
115 120 125

Thr Arg Gly Arg Ser Asn Thr Leu Ser Ser Pro Asn Ser Lys Asn Glu 130 135 140

Lys Ala Leu Gly Arg Lys Ile Asn Ser Trp Glu Ser Ser Arg Ser Gly
145 150 155 160

His Ser Phe Leu Ser Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile 165 170 175

His Glu Lys Gly Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe

180 185 190

Gln Glu Glu Ile Lys Glu Asn Thr Lys Asn Asp Lys Gln Met Val Gln 195 200 205

Tyr Ile Tyr Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Leu Leu Met Lys 210 215 220

Ser Ala Arg Asn Ser Cys Trp Ser Lys Asp Ala Glu Tyr Gly Leu Tyr 225 230 235 240

Ser Ile Tyr Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg Ile 245 250 255

Phe Val Ser Val Thr Asn Glu His Leu Ile Asp Met Asp His Glu Ala 260 265 270

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